AT&T 3B2 Disk cage removal and installation

16 step process (in 24 slides) to remove and install the disk cage in your PC-III system

Tools required

Tools required are common:

Above:

1. phillips (+) screwdriver (small)   2. ¼" box end wrench

3. ¼" socket   4. ¼" socket driver

Step 1 - Removal

-Disconnect all cables (SCSI, LAN, Console, Power) from the rear
 of the system

-Slide the system out of the cabinet on it's rails

  -Remove 3B2 cabinet cover using phillips screwdriver.
   5 or 6 screws each side.

  -Place all screws in a secure location and set cabinet cover aside.

3B2 Anatomy

Familiarize yourself with the internal components above before proceeding to dismantle your system.

1. Fan (note red power cable)
2. SCSI controller cable (gray)
3. FD5 (floppy) controller cable (gray)
4. Disk cage
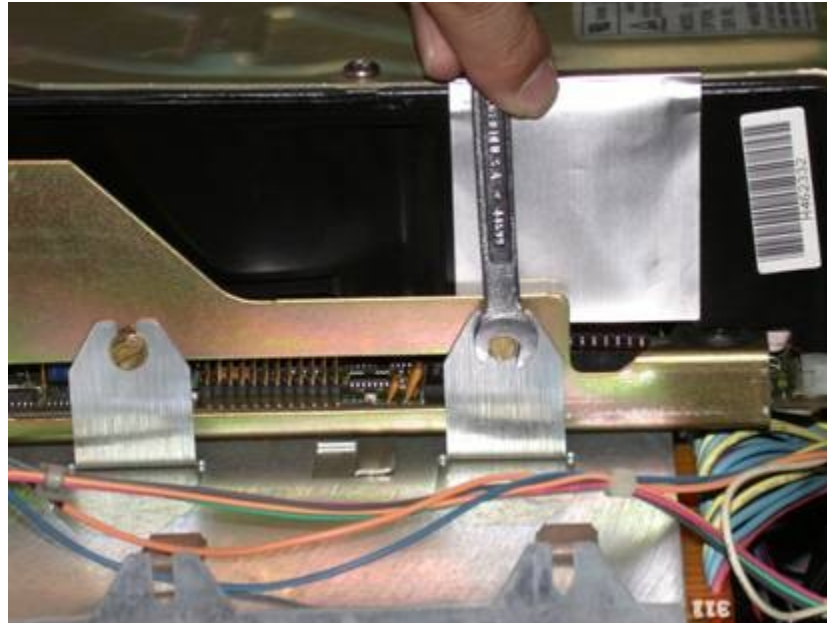5. Root drive (C1T1)

Step 2

2: Locate and disconnect floppy drive controller cable as shown above.

The picture above shows the location of the "root" hard drive (c1t1).
The technician is pointing where 2 of the 4 screws to be loosened are fou
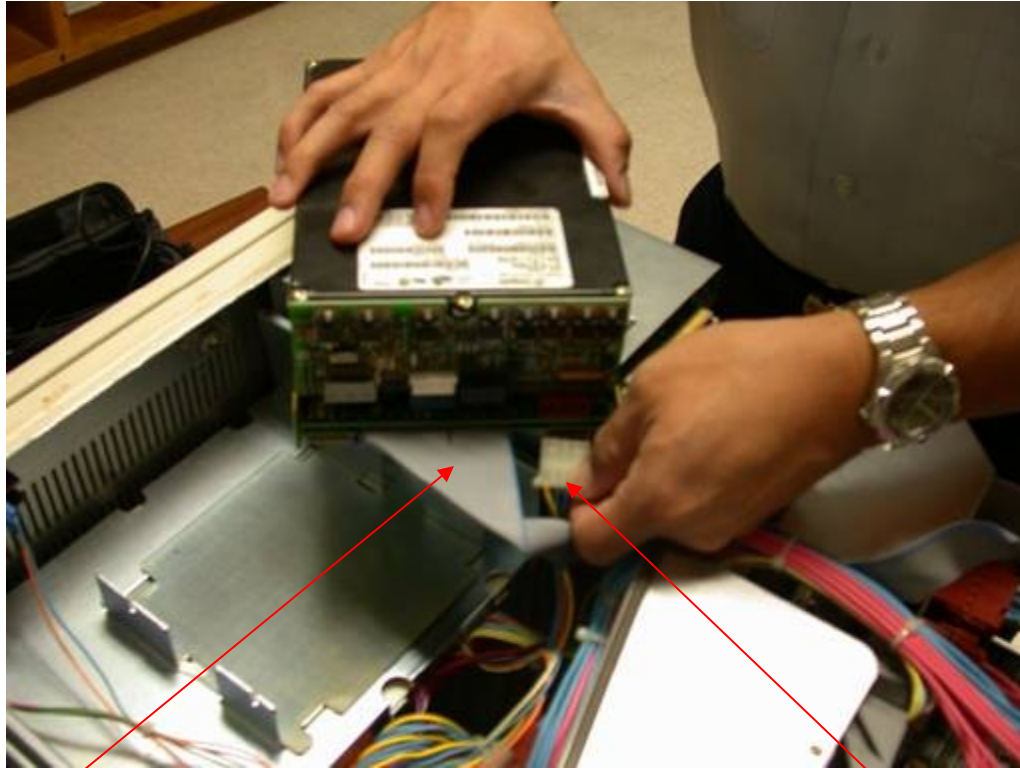
Step 3

Using the ¼" wrench, loosen the four ¼" hex head pan screws (two on each side of drive) one turn each.

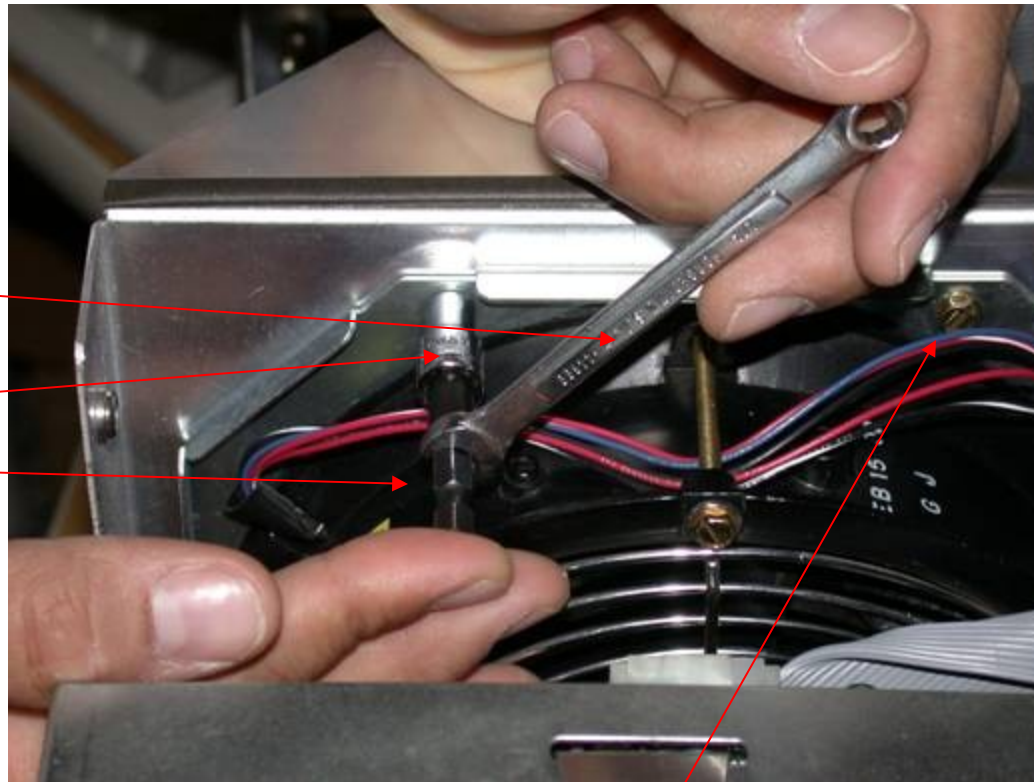**Note**: two screws on the other side of the drive are not shown.

Step 4

Raise and lift root drive out of drive bay. Disconnect power and bus controller cable. Carefully set the root drive aside and into a safe pla

Step 5

¼"
Wrench
Socket
Driver

¼" screw

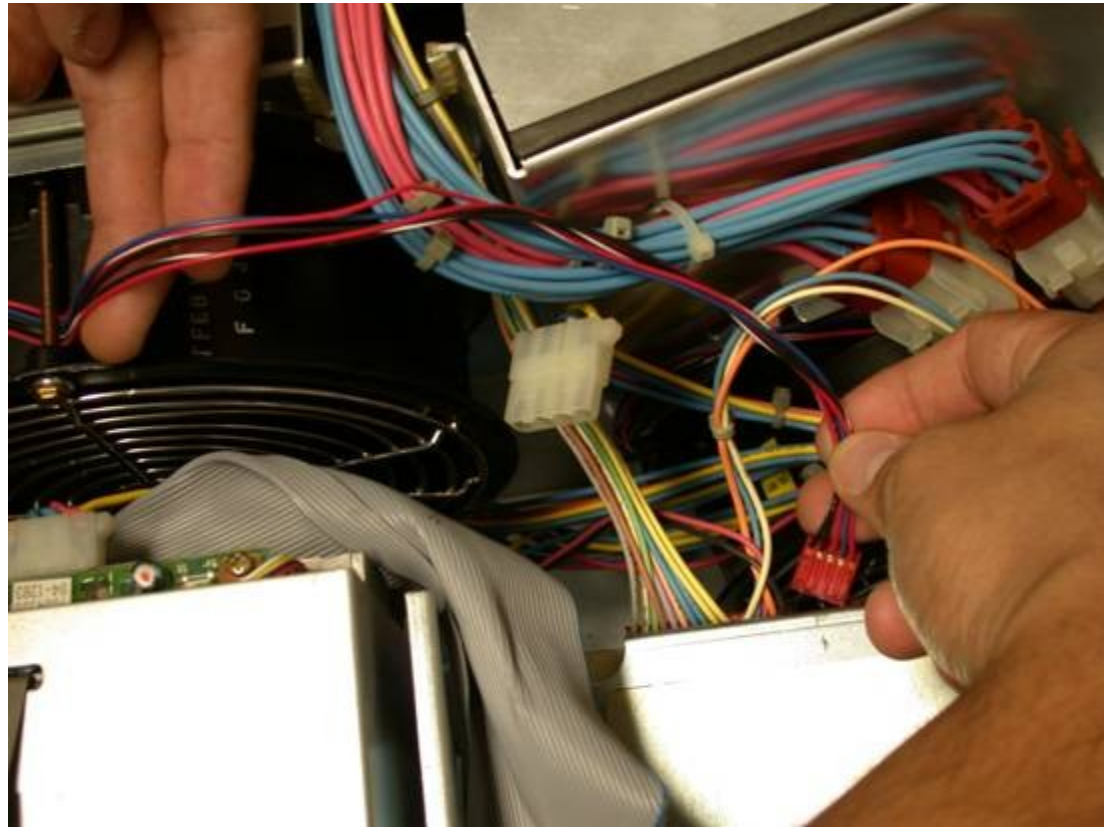**Remove the fan. The fan is secured in place with two ¼" hex head scr**
They are hard to get at using a screwdriver or nutsetter. The technici
uses the ¼" socket, driver and open end wrench to remove the screw

Note: 4 strand red/blue power cable.

Step 6

Disconnect the 4 wire fan power cable. Trace the cable from the fan to the
power supply.   Pull the red connector away from the port. Examine the co
closely to familiarize yourself with its operation. If not reconnected proper
system will not power back up! Remove the fan from the cabinet and set i

Step 7

With the fan now disconnected, lifted out and set aside, you may disconn[ect]
 the power cables from the disk cage. From the top: floppy drive, tape dr[ive]
c1t4, and finally c1t3.   Feel free to label each, though they're all the sam[e]
voltage/amperage. It's the cable length that matters when reconnecting[.]
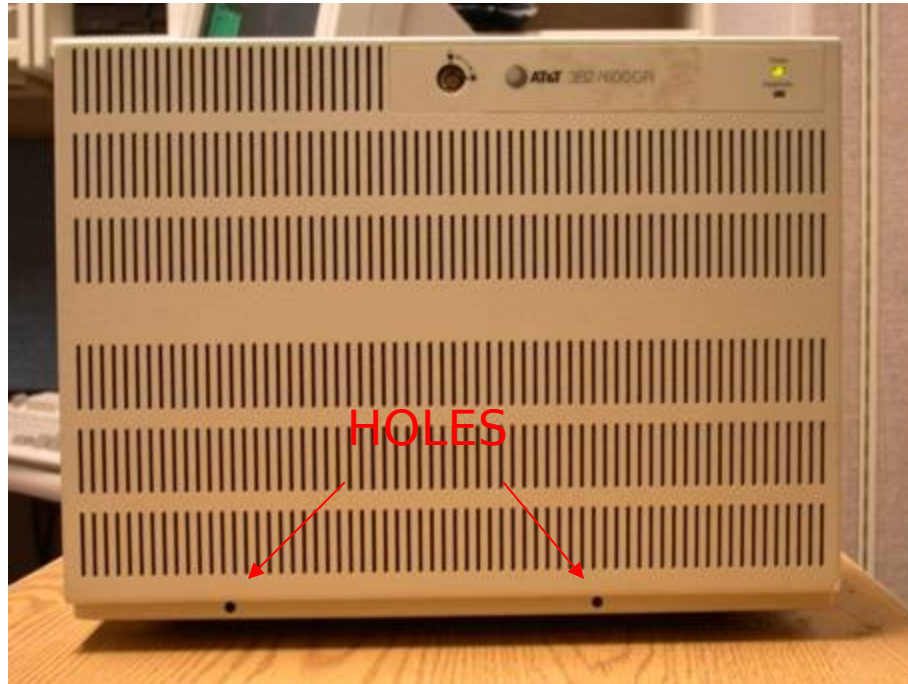
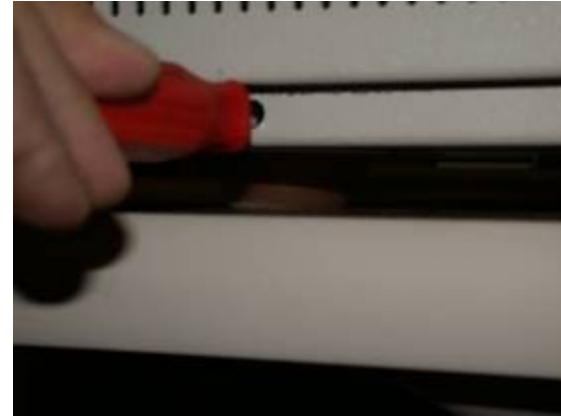**Notice:** the connector is shaped so it can only be inserted one way.

Step 8

With the power cables removed from the cage devices, CAREFULLY disconne
the SCSI controller cable. From the top: tape drive, c1t4, and c1t3 at the b
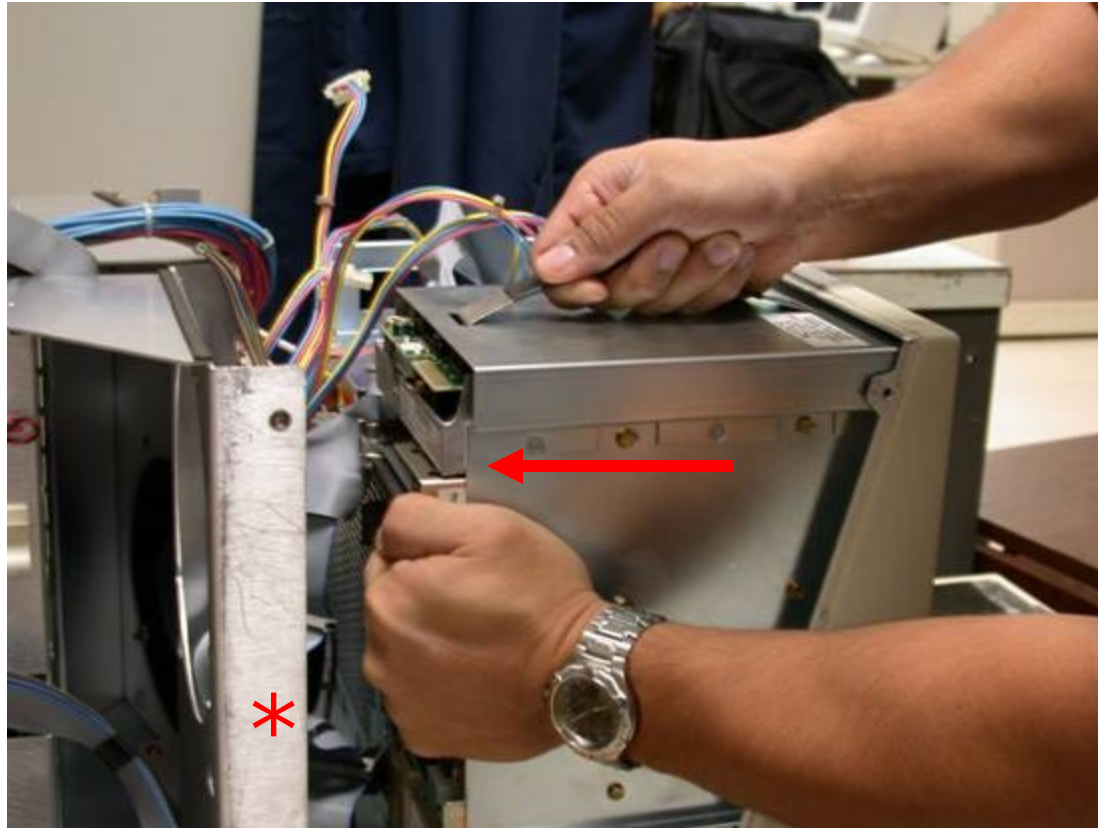
Step 9

HOLES

The disk cage can now be removed. The picture above shows the spring release holes that grant access to the mechanism that secures the disk cage and the power supply for the 3B2.   The **left** access hole is used to release the disk cage.

Step 9 cont.

Locate the left side spring release hole. Look closely into the hole and you'll see the end of the retaining spring that secures the disk cage to the cabinet base. It appears horizontally across the middle of the hole. Insert a small screwdriver into the hole **underneath** the retaining spring. With the screwdriver inserted, remove your hand and lower the front gate on top of the handle to disengage retaining spring.

Step 10

Above: Grasp the disk cage handle and slide/shift rearward.

...move the disk cage. Grasp the handle atop the disk cage with your right hand. ...sp the cage beneath the tape drive with your left. Use some force and shift/slid... ...cage rearward being careful not to hurt your left hand on the exposed sheet met... ...edge (*). Lift disk cage up and away once it has been slid rearward far enough.

Step 10 cont.

bove: Lift disk cage from 3b2 once it is slid rearward far enough to clear the fron
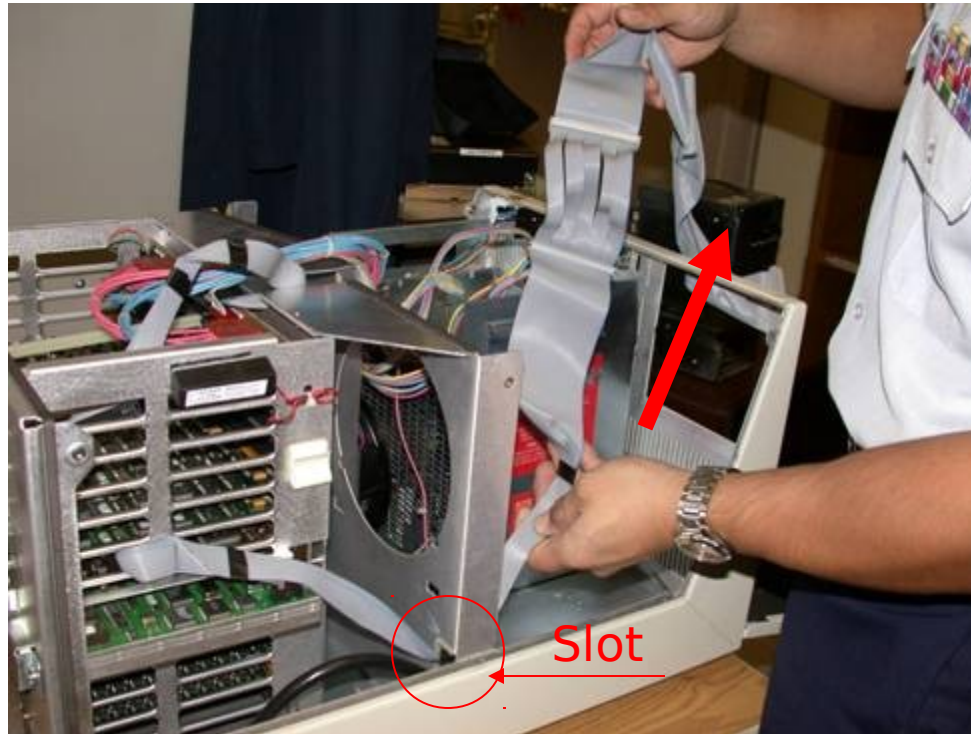
Step 11 - Installation

Previous instruction had you remove the 3B2 disk cage. The following de
the steps necessary to install the disk cage.

Begin the disk cage installation process by unhooking the SCSI controller cable
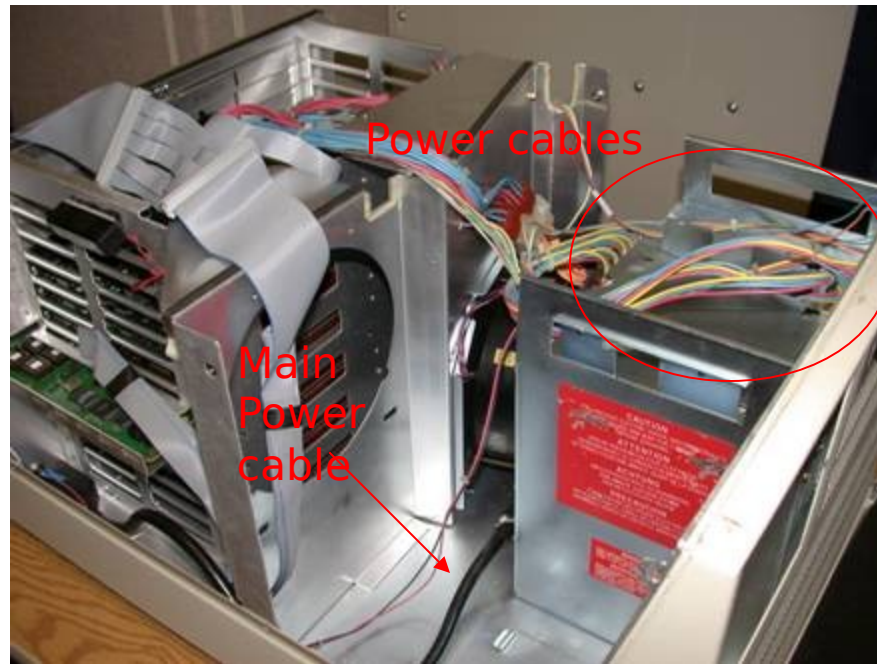as shown above.

Step 11 cont.

Technician feeds the SCSI cable through the slot.
Note the direction of which it is fed.

Once the controller cable has been unhooked, feed the cable through the
to obtain as much slack as possible without stressing the cable.

Step 11 cont.

In the picture above, the disk cage bay has been cleared for installation of the disk cage.

slack has been removed from the controller cable and the cable has been laid b
e power cables have been singled up and are moved to the top of the power sup
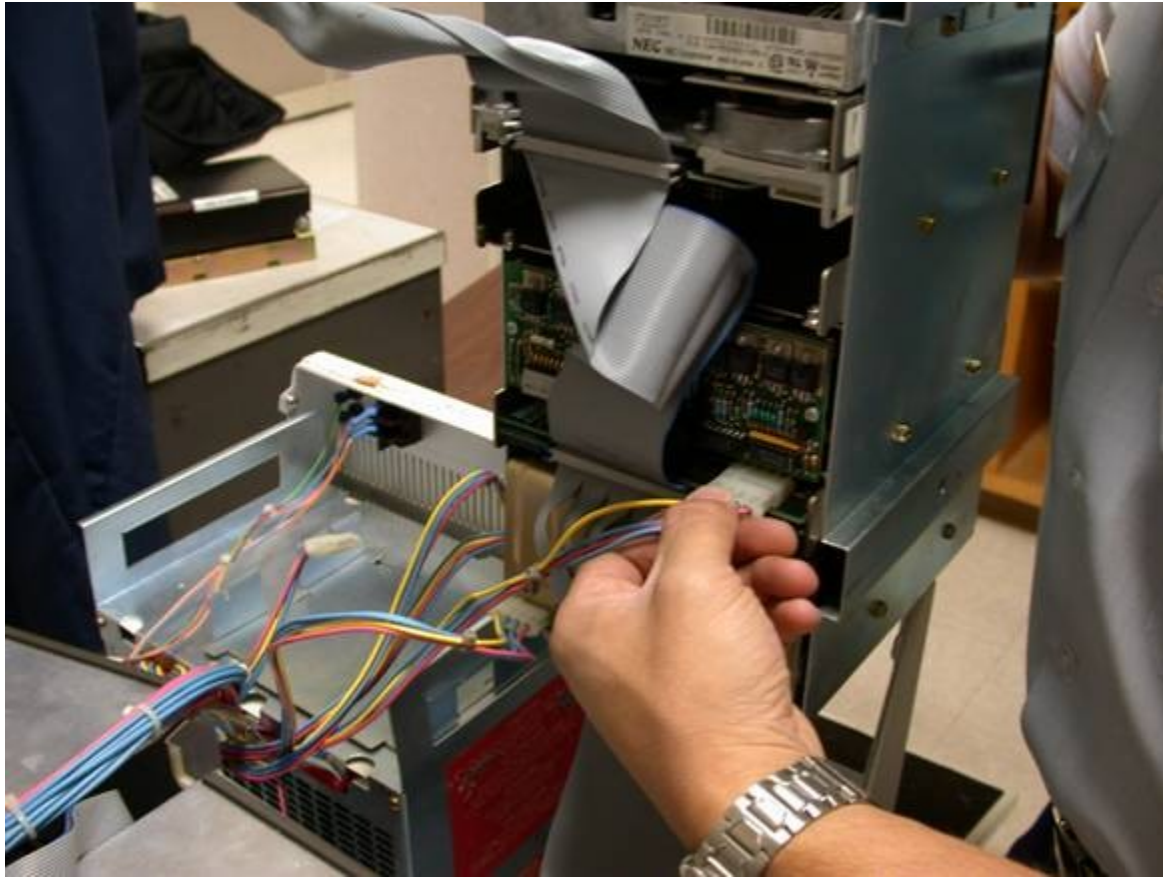**and out of the way.**
e note of the main power cable in the picture above. In the next step you must
care not to disconnect this cable when installing the disk cage.

Step 12

the picture at left, the technician balances the assembly on the edge of the cab
he controller cable has 4 connectors. The cable is connected to the disk cage fr
he bottom up. Be EXTREMELY careful to avoid bending the pins on the disk unit
ere are only 3 components to connect: ID3(h-disk), ID4(h-disk) and the tape dri
The last (4th) connector on the cable is reserved for the ID1(root disk).

Step 12 cont.

In the picture above the controller cable has been connected and power cables are being plugged in the bottom two devices. It is necessary to do this BEFORE lowering the assembly into the bay.
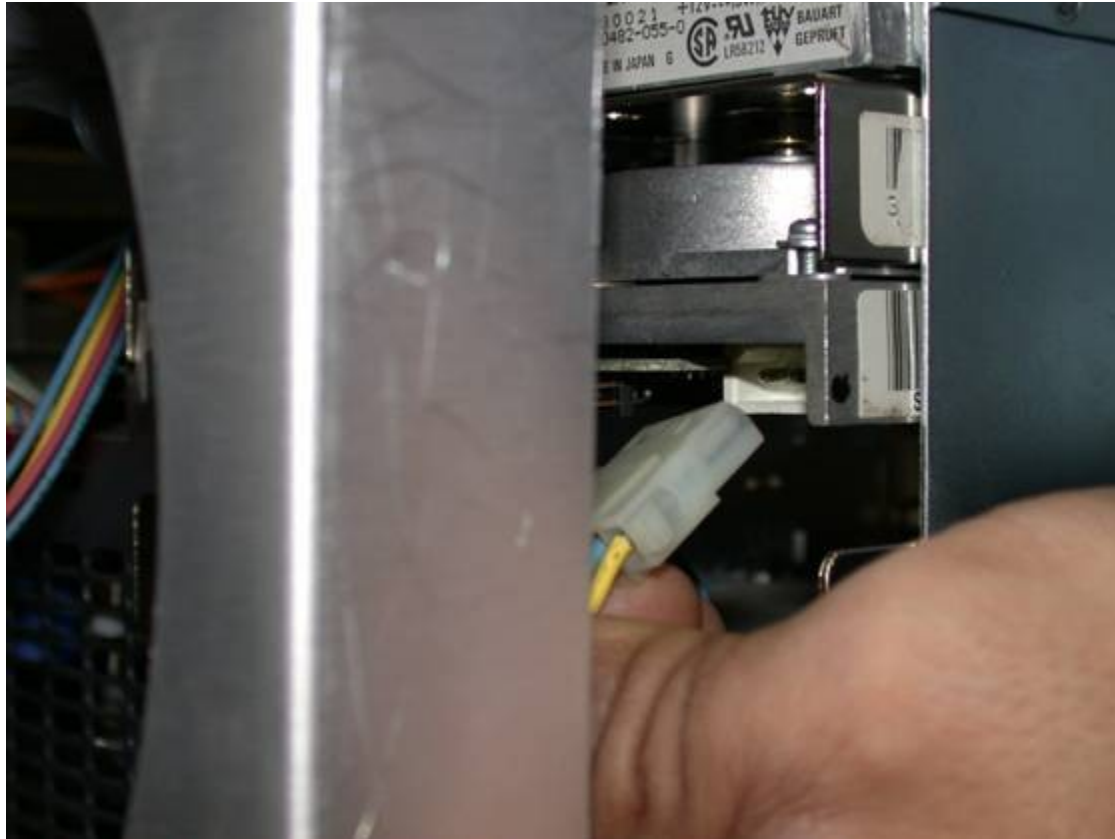
Step 13

Lower the assembly into the bay. The picture shows the technician simultaneously lowering the assembly, while at the same time pulling slack ction of arrow) from the controller cable. Once the assembly is sitting in the cab (watch the black power cable at the bottom!), slide the assembly forward until the spring clip engages with an audible "click".
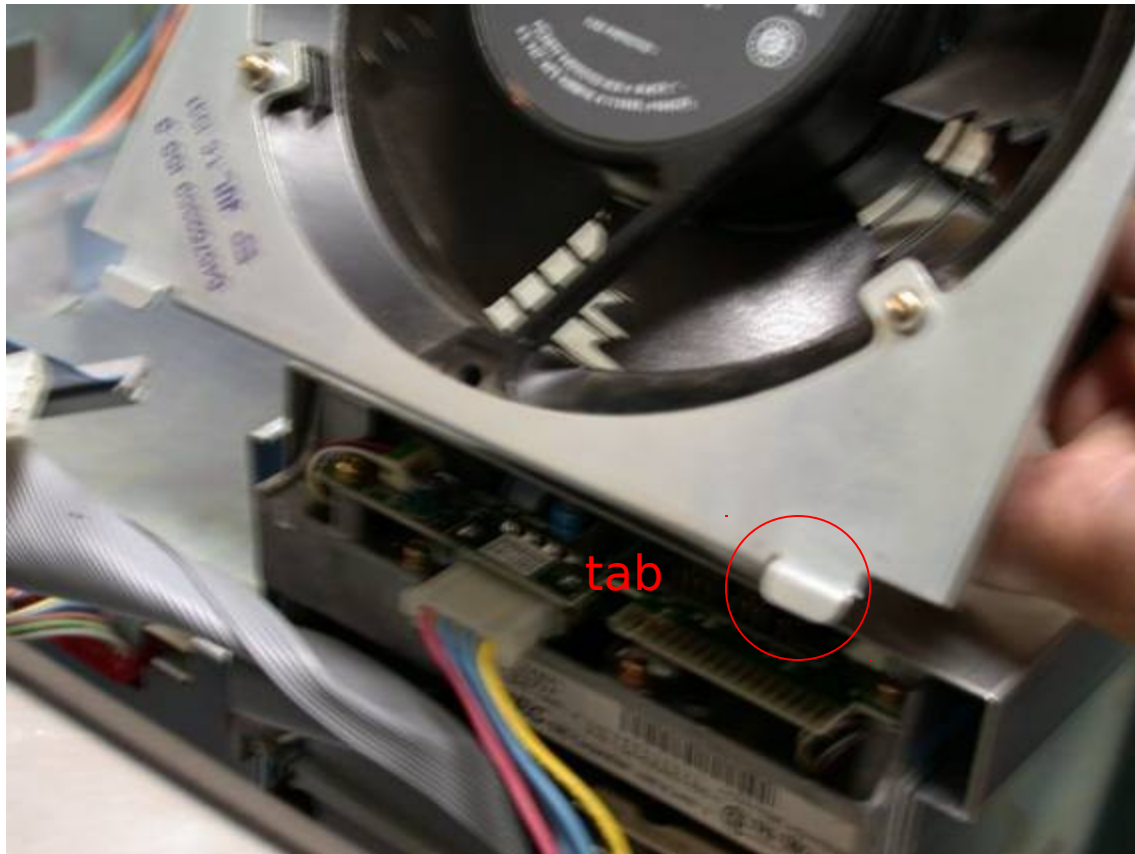
he assembly is properly seated and secured when the tape drive and floppy are flush In the front opening of the system cabinet.

Step 14

Power cables are plugged into the remaining two devices (tape drive and fl

Step 15

tab

Reinstall the fan. Insert the tabs at the base of the fan on the slots provided on the backplane.

Step 16

steps to disk cage installation. Refer to pictures in previous steps for clarificatio

1) Reconnect the fan power cable into the vacant slot you removed
it from. Install the ¼" retaining screws and tighten them.

2) Reconnect the FD5 (floppy) controller cable

3)Reconnect the controller cable and power cable to the root drive.

4) Install the root drive into its bay and tighten the ¼" screws on
each side.

5) Check the main power cord to ensure it's plugged into the power supply.

**The cable is black and runs behind the disk cage at the bottom
and into the power supply. It can sometimes become unplugged
when removing the disk cage.**

6) Install the cabinet cover.